

Description of a new Fish of the genus SALMO.
By C. A. LESUEUR. Read January 11, 1825.

SALMO.

S. microps. Pl. iii. Teeth in the superior and inferior jaws, long, hooked, armed with one or two barbs at their extremities; those of the inferior jaw much longer and projecting outwardly.

Body, including the caudal fin, four inches in length; depth, six lines; thickness, four lines, near the pectoral region; form elongate, thicker anteriorly, thin and slender towards the tail, slightly compressed upon the sides: *back, nuca* and *head*, describing a pretty uniform curve, rather more elevated towards the back: *abdomen* long, straight: *anus* behind the middle of the body: *head* subcompressed: *front* slightly arcuated: *snout* very short, a little longer than the diameter of the eye: *eyes* small, much approximated to the jaws, to the summit of the head, and extremity of the snout, where they scarcely leave room for the nostrils, which are small and indistinct: *branchiæ* with their apertures very large, open from the junction of the inferior jaws to near the nuca, after having described a semioval curve, behind the angle of the jaws; this disposition renders the opercular pieces very oblique; these pieces are, as all the rest of the fish, soft and rather membranaceous than osseus, they are weak and indistinct, and the form of each piece is scarcely determinable,

and as though pushed from their place by the profound opening of the mouth, which is the seventh part of the whole length of the body, or six lines in length: *branchiostegous membrane* narrow, sustained by ten or twelve weak approximate rays: *branchial arcs* much geniculated, furnished with very short branchial filaments: *mouth* spacious, horizontal, deeply cleft, having its angle about five lines behind the eyes: *tongue* scarcely perceptible, sustained at its extremity by a membrane, and at the junction of the inferior mandible by two small, moveable, lateral bones; its teeth are slender, long, curved, in many ranges, continued as far as the pharynx: *vomer* armed on each side with two rows of teeth, rather shorter than the preceding; wings of the palate with two rows of slender hooked teeth, of moderate size: *intermaxillaries* small, furnished with teeth: *maxillaries* straight, long, each with two rows of hooked teeth; those of the interior row longer, more curved, and sometimes terminated by two small barbs: *inferior jaw* equal to the superior, straight, armed with two rows of teeth, which are slender, curved, and hooked, terminated by barbs; those in the exterior row much longer than those of the superior jaw; they are moveable and projected outwardly; at the extremity of the lower jaw on each side, are three or four teeth of a line in length, longer, more arcuated, and more moveable than the others, terminated by very distinct barbs; teeth of the interior row smaller, and appear to be placed between the first like secondary teeth: *scales* small, with concen-

tric lines, rounded, pellucid, and very soft: *lateral line* almost straight, in the middle of the body: *fins*, first dorsal short, subtriangular, higher than long, elevated anteriorly; second dorsal adipose, placed above the posterior part of the anal fin; *ventrals* large at their base, and terminating in a point, which is prolonged towards the middle of the anal fin, one inch four lines long, placed at the third of the length of the body, under the origin of the dorsal and towards the head; *pectorals* falciform, about one inch and two lines in length, their points reach the posterior base of the dorsal fin; they are placed upon the sides about the middle of the height and near the branchial opening; *anal fin* middle sized, as long at the base as the height of its anterior part, emarginate posteriorly, placed nearly midway between the ventral and caudal fins: *tail* long and narrow, terminated by a fin small in proportion to the others, slightly emarginate, the superior lobe largest and longest: *colour* reddish; *back* marked with numerous brownish points, (the spirits appeared to have changed its colour.)

B. 10—12. P. 15. 1st D. 14. 2d D. 0. V. 9.
A. 16. C. 20.

Inhabits the East Indian seas.

Communicated to me by Dr. Hays.

OBSERVATIONS. In the form of the body, the deeply cleft mouth, the head, and number of branchiostegous rays, this fish is closely related to the subgenus *Saurus*, of Cuvier, but it is distinguished by the teeth of the vomer. It does not appear possi-

ble to place it in the subgenus *Salmo*, of Cuvier, in consequence of its large pectoral and ventral fins, and particularly of the teeth, which are moveable, and barbed. We think proper, therefore, to make it the type of a new subgenus near to *Saurus*, under the name of *Harpadon*, with the following characters.

Jaws, tongue, pharynx, wings of the palate and vomer, armed with moveable, slender, curved teeth, those of the jaws barbed.

Description of a new crystalline form of APOPHYLLITE, LAUMONITE, and AMPHIBOLE, and of a variety of PEARLSTONE. By GERARD TROOST, M. D. Read May 17, 1825.

The geode from which the following description of Apophyllite has been drawn up, was presented to me by Dr. Bigsby, who found it imbedded in the amygdaloid of Point Marmoaze, (*Memince of the Voyageurs*,) on Lake Superior, 44 miles N. W. from the straits of St. Mary. It is composed of white calcareous spar, with a little fibrous Prehnite interspersed, and is lined with crystals of quartz, and of the new form of APOPHYLLITE.

The last mentioned mineral, now discovered for the first time in North America, has a beautiful opalescent play of colours; it is translucent, passing into transparent, exfoliates like the European variety before the blowpipe, and melts into a white